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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,318	06/27/2003	Kent A. Franklin	K-C 13685.2	7348

7590 08/02/2004

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EXAMINER	
STONER, KILEY SHAWN	
ART UNIT	**PAPER NUMBER**
1725	

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/609,318	FRANKLIN ET AL.	
	Examiner	Art Unit	
	Kiley Stoner	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,9,12,13,15 and 17-19* is/are rejected.

7)☒ Claim(s) *2-8, 10-11, 14, 16 and 20-22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6-27-03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "said rotary ultrasonic horn" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 12-13, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamoto (JP-61022641). Okamoto teaches an ultrasonic horn (tool #9) in contact with a material to be bonded (abstract and Figures); and non-contact means for measuring an amplitude of said ultrasonic horn (abstract and Figures); control means for directly regulating said amplitude of said ultrasonic horn operably connected to said ultrasonic horn (abstract).

Okamoto also teaches an ultrasonic horn; non-contact measurement means for directly measuring an amplitude of said ultrasonic horn; and control means for modulating said amplitude of said ultrasonic horn in communication with said non-contact measurement means (abstract and Figures); said non-contact measurement means comprises a non-contact amplitude sensor and a data acquisition and analysis system, said data acquisition and analysis system operatively connected to said amplitude sensor and determining an amplitude of said ultrasonic horn (abstract and Figures); a light source for directing a beam of light onto a surface of an ultrasonic horn, thereby generating reflected light; a photodetector for receiving said reflected light, said detector producing an output signal proportional to at least one of an intensity of said light and a location of said light on said detector; translating means for correlating said output signal to the amplitude of the ultrasonic horn; and means for adjusting the amplitude of said horn in accordance with said correlated signal (abstract and Figures); said data acquisition and analysis system further comprises translation means for converting a displacement of said light spot on said detector into a horn displacement (abstract and Figures).

Claims 1, 9, 12-13, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kajiwara et al. (5,431,324). Kajiwara et al. teaches an ultrasonic horn (1,2) in contact with a material to be bonded; and non-contact means for measuring an amplitude of said ultrasonic horn (column 3, lines 18-59; column 5, lines 35-49; column 6, lines 24-51; and column 7, lines 58-61); control means for directly regulating said

amplitude of said ultrasonic horn operably connected to said ultrasonic horn (column 6, lines 24-51). Because the tool (2) is attached to the horn (1) it has been considered by the examiner to be part of the horn. It is inherent that both the tool and the horn will vibrate at the same frequency since they are attached.

Kajiwara et al. also teaches an ultrasonic horn; non-contact measurement means for directly measuring an amplitude of said ultrasonic horn; and control means for modulating said amplitude of said ultrasonic horn in communication with said non-contact measurement means (column 3, lines 18-59; column 5, lines 35-49; column 6, lines 24-51; and column 7, lines 58-61); said non-contact measurement means comprises a non-contact amplitude sensor and a data acquisition and analysis system, said data acquisition and analysis system operatively connected to said amplitude sensor and determining an amplitude of said ultrasonic horn (column 6, lines 24-51); said non-contact amplitude sensor comprises: a light source for directing a beam of light onto a surface of an ultrasonic horn, thereby generating reflected light; a photodetector for receiving said reflected light, said detector producing an output signal proportional to at least one of an intensity of said light and a location of said light on said detector; translating means for correlating said output signal to the amplitude of the ultrasonic horn; and means for adjusting the amplitude of said horn in accordance with said correlated signal (column 3, lines 51-59 and column 6, lines 24-51); said data acquisition and analysis system further comprises translation means for converting a displacement of said light spot on said detector into a horn displacement (column 6, lines 24-51).

Allowable Subject Matter

Claims 18-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 2-8, 10-11, 14, 16 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art of record that is cited as of interest is presented on the form-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiley Stoner whose telephone number is (571) 272-1183. The examiner can normally be reached on Monday-Thursday (7:30 a.m. to 6:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on Monday-Friday at (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kiley Stoner A.U. 1725
Kiley Stoner 7/28/04